ABSTRACT

[0104] The present invention is a method, system, and computer program product for implementation of a capable, general purpose compression algorithm that can be engaged "on the fly". This invention has particular practical application with time-series data, and more particularly, time-series data obtained form a spacecraft, or similar situations where cost, size and/or power limitations are prevalent, although it is not limited to such applications. It is also particularly applicable to the compression of serial data streams and works in one, two, or three dimensions. The original input data is approximated by Chebyshev polynomials, achieving very high compression ratios on serial data streams with minimal loss of scientific information.